

Application Serial No: 10/006,734
In reply to Office Action of 03 September 2003

Attorney Docket No. 82736

AMENDMENTS TO THE CLAIMS

1. (currently amended): An additive for an aluminum based semi-fuel cell system comprising:

sodium gallate ~~a combination of components including gallium, oxygen, and a sodium component, said components to preventing~~ prevent formation of an oxide layer on a surface of an aluminum anode in an alkaline electrolyte of said semi-fuel cell system.

2. (currently amended): The additive according to claim 1 wherein said ~~combination of components~~ sodium gallate is dissolvable in the alkaline electrolyte.

3. (canceled).

4. (currently amended) The additive according to claim ~~3~~ 1 wherein sodium gallate is obtained from the following:

sodium oxalate + gallium oxide 1200°C, sodium gallium oxide
+ carbon dioxide.

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5. (currently amended): The additive according to claim 1 wherein the alkaline electrolyte of the semi-fuel cell system includes a reaction product of aluminum with an alkaline solution ~~such as sodium hydroxide~~.
6. (original): The additive according to claim 5 wherein the aluminum is elemental aluminum.
7. (original): The additive according to claim 5 wherein the aluminum is an aluminum alloy.
8. (currently amended): A process for preventing formation of an oxide layer on a surface of an aluminum anode in an aluminum based semi-fuel cell system comprising the steps of:
- (a) forming an alkaline electrolyte solution in an anode compartment of said semi-fuel cell system; and
 - (b) introducing ~~a combination of components including gallium, oxygen, and a sodium component~~ sodium gallate into said alkaline solution.

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9. (currently amended): The process according to claim 8 wherein said ~~combination of components~~ sodium gallate is dissolvable in the alkaline electrolyte.

10. (canceled).

11. (currently amended): The process according to claim ~~10~~ 8 wherein sodium gallate is obtained from the following:

sodium oxalate + gallium oxide 1200°C, sodium gallium oxide
+ carbon dioxide.

12. (currently amended): The process according to claim 8 wherein the alkaline electrolyte of the semi-fuel cell system includes a reaction product of aluminum with an alkaline solution ~~such as sodium hydroxide~~.

13. (original): The process according to claim 12 wherein the aluminum is elemental aluminum.

14. (original): The process according to claim 12 wherein the aluminum is an aluminum alloy.

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15. (new): The additive according to claim 5 wherein said alkaline solution is sodium hydroxide.

16. (new): The process according to claim 12 wherein said alkaline solution is sodium hydroxide.